Freeform Search

Database: US Pre-Grant Publication Full-Text Database; US Patents Full-Text Database; US OCR Full-Text Database; EPO Abstracts Database; JPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Term: L10 AND L3

Display: 10 **Documents in Display Format:** - **Starting with Number** 1

Generate: ○ Hit List ◉ Hit Count ○ Side by Side ○ Image

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Search History

DATE: Thursday, October 21, 2004 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
	DB=PGPB,USPT; PLUR=YES; OP=OR		
L11	L10 AND L3	2	L11
L10	L1 and L2	998	L10
L9	L7 and L4	0	L9
L8	L7 and L3	2	L8
L7	(L1 and L2)	998	L7
L6	(L1 and L2) and (L3 and L4)	0	L6
L5	L1 and L2 and L3 and L4	0	L5
L4	(determin$3 adj slope adj value)	79	L4
L3	(calculat$3) near5 (first or second) near5 (function) and (first adj order adj function)	29	L3
L2	(scan$4 or read$4) near5 (portion or section or part) near6 (data or image or document)	48469	L2
L1	(detect$4 or determin$4 or discriminat$3 or disginat$3) near5 (edge or border) near4 (document or sheet or paper or original)	5536	L1

END OF SEARCH HISTORY

L1 & L2

h e b b g e e e e g f ff e ch

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Terms	Documents
L1 AND L2	53

Database:
US Pre-Grant Publication Full-Text Database
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Search: L3

Refine Search

Recall Text Clear Interrupt

Search History

DATE: Friday, October 29, 2004 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=PGPB,USPT; PLUR=YES; OP=OR			
L3	L1 AND l2	53	L3
L2	(DETECT$4 OR DETERMIN$4 OR CALCULAT$3) NEAR3 SLOPE	17504	L2
L1	(DETECT$4 OR DETERMIN$4 OR DISCRIMINAT$4 OR DESIGNAT$3) NEAR5 (EDGE OR BORDER) NEAR4 (DOCUMENT OR SHEET OR PAPER OR ORIGINAL)	5862	L1

END OF SEARCH HISTORY

h e b b cg b e e ch

L3: Entry 5 of 53 File: PGPB Aug 14, 2003

DOCUMENT-IDENTIFIER: US 20030152272 A1
TITLE: DETECTING OVERLAPPING IMAGES IN AN AUTOMATIC IMAGE SEGMENTATION DEVICE WITH THE PRESENCE OF SEVERE BLEEDING

Summary of Invention Paragraph:
[0006] U.S. Pat. No. 5,528,387 to Kelly et al., issued Jun. 18, 1996, teaches electronic image registration in a scanner. In particular, the edge data of a document is detected and skew angle calculated. The image is then rotated based upon the skew angle and non-image areas are filled using an image generation feature.

Detail Description Paragraph:
[0076] In particular, a standard regression algorithm fits data to the line y=mx+k. However, using a standard regression algorithm to perform these functions can lead to erratic results as the line approaches a vertical. Therefore, in the present invention, the algorithm is modified so as to account for these erratic results. As shown in FIG. 8 in each of the four quadrants indicated therein, a standard regression is used for the lines that are more horizontal in two quadrants with a slope between -45.degree. and +45.degree.. When the slope is not in the identified degrees, that is, when the lines are more vertical with a slope greater than 45.degree. and in the other two quadrants, an inverted linear regression based on the inverted linear equations x=1/ny-k/m is performed. The slope angle is determined from the following equations:

Detail Description Paragraph:
[0077] Once the slope calculation are accomplished, at step 430 of FIG. 6, each point associated with an angle is categorized by performing a bin categorizing operation to generate a series of bins. For example, as shown in FIG. 9, bins B1, B2, B3, and B4 . . . are generated from a series of angles, which are associated with each point. The object of step 430 is to categorize groups of adjacent boundary points that share a common slope, i.e. convert the list of boundary points into a sequence of bins (B1, B2, B3 . . .) where each of the bins consists of a set of collinear points so as to generate a boundary of an image made up of a set of straight line segments.

Detail Description Paragraph:
[0080] After the bin removal of the smaller bins, an average angle of points within each of the remaining bins is determined at step 450. The same modified regressions described above are now applied to the remaining bins generating an average slope and average slope angle calculation for each of the remaining bins.

Detail Description Paragraph:
[0081] Next, the remaining bins that share common angles are combined at step 460. These remaining bins were previously not adjacent to each other but became adjacent at step 440 by the removal of small bins found in between the non-adjacent bins. When these bins in between are removed, the bins that are left and that are now adjacent can sometimes be collinear. Therefore, the angle of each bin is checked and if adjacent bins are collinear, the bins are joined into a single bin at step 460. Such a procedure is illustrated in FIG. 11, were a bin defined by AL-AR and

andther bin defined by BL-BR are compared to each other. The midpoint between each point AM/BM is calculated and the slope of the segment AB is determined and compared to the slopes of each of the bins. If the slopes are within 10.degree., an amount designated as E, then the following calculation is performed.

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